

SSOW – Working at height from ladders.

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Scope of Activity:	This safe system of work covers Forkway Engineers working at height from ladders. It does not cover the tasks/ activities being undertaken when working from the ladders. These will be covered in the relevant risk assessment and safe system of work for the tasks/ activities being undertaken.
Applicable Risk Assessment:	RA 002 – Working at height from a ladder.
Hazards Expected:	As identified in the applicable risk assessment.
Mandatory PPE:	Overalls Safety boots Nitrile gloves Safety glasses High visibility clothing (vest as minimum) Ladder Harness Belt (EN 358 standard) Snap hook/ Scaffold Hook (EN 362 standard) connected to Karabiner (EN 362 Standard)
Additional PPE (as required):	Bump cap (if working in area/ position with poor head clearance) Hard hat (to be worn by any employees left at ground level)
Resources:	Competent engineer (s) Ladder provided by Forkway Equipment UK (Minimum EN 131 standard or Class 1 standard) 2x ratchet straps Barrier tape (as required)

Manning:

Field service engineer(s) reporting to an Engineering Manager who is responsible for providing information, instruction, supervision and ensuring that the engineers are suitably trained. In turn the Engineering Manager reports to the Senior / Regional Business Manager.

Engineers will take full responsibility for:

- Customer contact, authority to carry out the task, signing and implementing customer work permits and following customer site rules;
- Establishing with the customer and working in a safe area and environment;
- Ensuring that a risk assessment is in place, is suitable and sufficiently covers all hazards;
- Familiarising themselves with the equipment operator and maintenance manuals;
- Ensuring all maintenance and repairs are completed in accordance with the manufacturer's manual.

Safe Working Method:

Prerequisites – If you suffer from any form of health condition, whether short term or chronic, which can affect consciousness or balance in any way you must contact and notify your line manager before proceeding. Similarly, if you are using any form of medication or have been feeling, dizzy, drowsy or unwell in any way you must also contact and inform your line manager before proceeding.

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It is important to remember that ladders are only suitable for low to medium level work at height (2 - 4 metres) where no other suitable platform style access equipment is available.

Ladders must only be used for short duration (not exceeding 30 minutes), low risk activities. The work completed from a ladder must not involve heavy lifting or excessively forceful movements. Ladders used must be manufactured to EN 131 standard or Class 1 standard and must be Thoroughly Examined by a competent person at least once every 12 months. All limitations outlined by the manufacturer of the ladder, including maximum weight limits, must be observed and complied with at all times.

When working from a ladder you must never over-reach off the side as this could result in you falling off. Your feet must never be positioned on or above the top 2 rungs of the ladder in any formation. You should avoid carrying multiple pieces of tooling, parts or equipment as this may prevent you from keeping a suitable grip of the ladder. You must also consider the weight, size and shape of tooling, parts or equipment before carrying them up or down a ladder. If tools, parts or equipment are going to be too heavy or awkward to carry you must use alternative more suitable access equipment. As a general rule you should avoid handling items heavier than 10KG when working with a ladder.

Suitable work area for using ladders – Before using ladders you must ensure that you can or have established a suitable work area.

- **Ground conditions** – Ladders can be used both indoors and outdoors providing there is firm, level and solid ground surface. You must never use ladders on surfaces that are loose, uneven or sloping as this could lead to the ladder slipping or tipping over. Further to this, the surface should be clean and free from any slippery chemicals, substances or residues.

Ideally you should only use in dry ground conditions however if work on damp surfaces cannot be avoided caution must be taken to ensure that the natural slip resistance of the surface has not been affected. You must ensure that the ladder rungs and soles of your shoes are clean and dry before climbing the ladder;

- **Environmental factors** – Ideally ladders should be used indoors however they can be used outdoors providing you have the correct conditions. You must not use ladders in snow, frost or icy conditions as the ladder could slip. Similarly, you must not use the ladders where there is a high wind as you could become unbalanced and fall off.

Finally, it is not suitable to use ladders in the rain as the rungs of the ladder and your feet are likely to be wet which could cause you to slip as you travel up and down the ladder. If you need to work at height in the rain you must either seek more suitable access equipment where the risk of slipping and falling is less significant. Otherwise, you must postpone the work at height element until such times as the rain has stopped.

- **Vehicle and pedestrian traffic** – When selecting a work area in which you will be using ladders you must choose one that is free from excessive vehicle or pedestrian traffic. Incidents could occur from ladders being struck by vehicles or pedestrians. Similarly, pedestrians could be struck by objects dropped from height when using the ladder. If work cannot be avoided in areas where vehicle or pedestrian traffic is likely, you must cordon off the area using cones or barrier tape before starting;
- **Overhead obstructions or hazards** – When using a ladder, you must be conscious of existing or potential overhead obstructions or hazards. You must never use a ladder below or near power cables, pylons or sources of electricity. You must also be conscious of this hazard when carrying a ladder. For example, if working on or near a railway platform you must carry the ladder horizontally by your side.

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When selecting a suitable work area, you must always check for moving overhead obstructions that could strike you when working on a ladder. Examples of this include overhead cranes, moving production lines, etc. Work in areas which have or could potentially have moving overhead obstructions must be avoided. If it cannot be avoided, suitable safeguards must be in place before starting, e.g., moving overhead obstruction is isolated and suitably locked off before starting.

Areas where sources of vibration are likely or possible must also be avoided as this could cause the ladder to move or become unstable. Examples of this may include work near large machinery that emits levels of vibration or site maintenance operations such as road breaking or resurfacing. If work in these areas cannot be avoided suitable safeguards must be put in place to ensure that sources of vibration are isolated and suitably locked off before starting.

Pre use checks on equipment – Once you have established a suitable work area for using your ladder you must complete pre-use checks on the ladder and all other associated items (ladder harness belt, snap-hook, karabiner and ratchet straps).

You must follow all of the checks highlighted by as necessary by the manufacturer and as a minimum must check the following:

1. Check that the feet are in place, in good condition and free from any contamination;
2. Check that the rungs and stiles of the ladder are not bent, dented, twisted or weakened in any way;
3. Check for signs of cracked welds, loose bolts or loose rivets;
4. Check that any locking devices or moving parts are fully operational and free from any defects;
5. Visually inspect the ladder harness belt, snap-hook, karabiner and ratchet straps for signs of damage or wear. Ensure all locking devices are fully operational and free from any defects. Ensure the ladder harness belt is suitably adjusted to fit you;
6. Finally check that the rungs of the ladder are clean and dry.

If you find any defect with the ladder or associated equipment you must report it to your line manager before proceeding.

Fitting the ladder harness belt – When working from a ladder, you must secure yourself to the ladder using the ladder positioning belt. The belt is size adjustable and must be fitted tightly around your waist ensuring that the padded back support remains at the back. At the front of the belt there is a metal D link. With the belt adjusted this should face directly forward in the centre of your waist.

A karabiner should be connected to this D link which in turn should be connected to a snap hook. The snap hook should be connected as such that opening end faces downwards. Ensure that the screw-gate on the karabiner is screwed shut.

Safe working method for using the ladder in the folded/ A-frame position – If you are using the ladder in the folded position you must follow the following safe working method:

1. Transport the ladder in its closed form to the desired location and fold to the necessary size and configuration, ensuring that all the locks are in place;
2. As preference where possible position the ladder so that you will be facing towards the task. Where this is not achievable you can work side on;
3. Position the ladder as close as possible to the equipment you will be working on;

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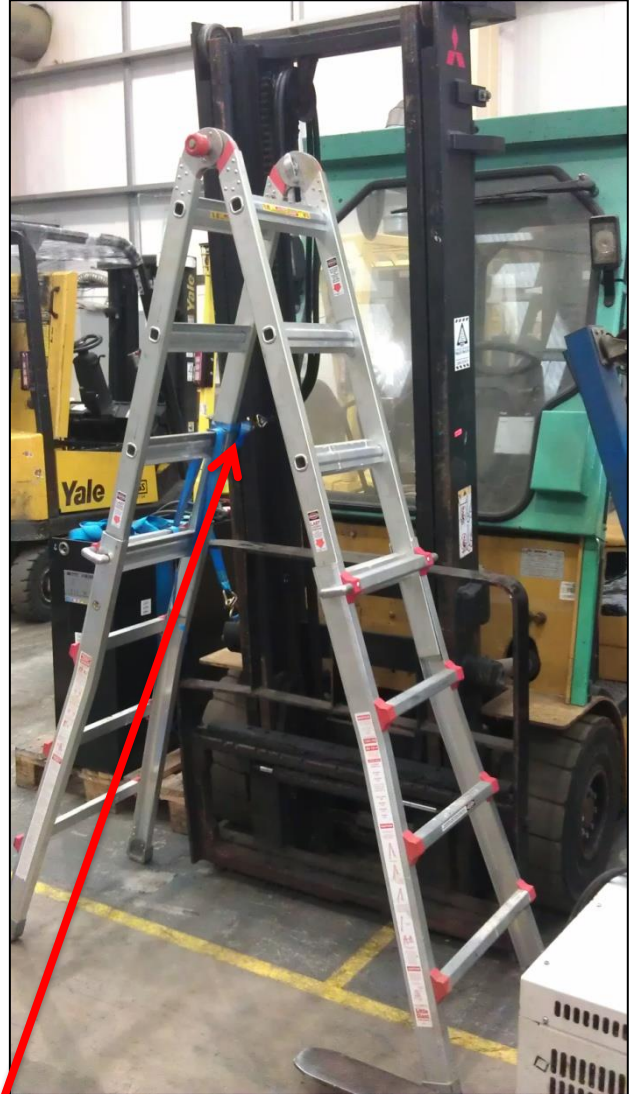
4. Using one of your ratchet straps, secure the ladder near the top to the equipment you will be working on. To do this, wrap the ratchet strap around the stile of the opposite side to which you will be climbing and a strong and substantial part of the equipment which will not be able to move in any way.
5. Connect the hook part of one end to the looped part of the opposing end of the ratchet strap. Adjust the tension on the ratchet strap by hand and then ratchet a couple of times to secure. Make sure you do not over-tighten the ratchet strap as this could damage the ladder. The ladder should still be sitting on all of its own feet;
6. Climb the ladder taking one rung at a time using both hands where possible;
7. Once you have reached your desired height you must secure the snap hook around the rung of the ladder directly in front. This will ensure you maintain 3 points of contact at all times, even if using both hands.

Safe working method for using the ladder in the extended position – If you are using the ladder in the extended position you must follow the following safe working method:

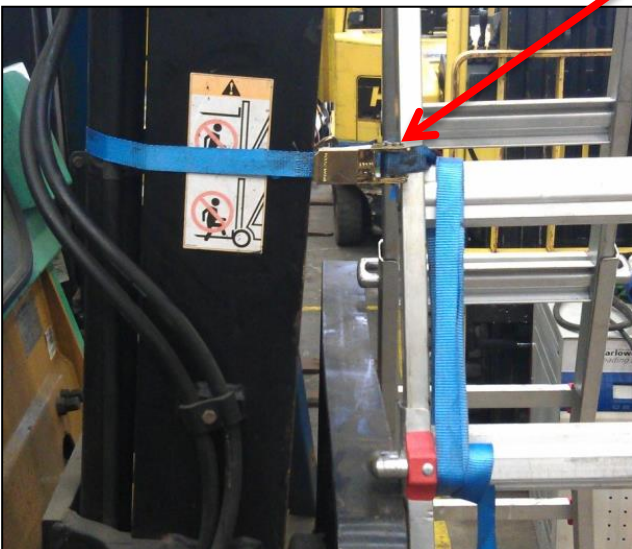
1. Transport the ladder in its closed form to the desired location and fold to the necessary size and configuration, ensuring that all the locks are in place;
2. Lay the ladder flat on the floor with the base end up against the equipment you will be working on and raise from the opposite end;
3. Position the ladder against the equipment at a 75% angle. The one in four rule can be used as an approximate guide for this (for every 4 metres in height the base should be moved out by one metre). Ensure that the ladder is firmly against the contact surface of the equipment and does not wobble or move in any way;
4. Once you have the ladder in the desired position you must first secure it at low level (approximately chest height) using one of your ratchet straps. To do this wrap the ratchet strap around the rung of the ladder and a strong and substantial part of the equipment which will not be able to move in any way. Use a rung of the ladder that is higher than point being secured to on the equipment so that the ratchet strap is securing the ladder in its desired angle;
5. Connect the hook part of one end to the looped part of the opposing end of the ratchet strap. Adjust the tension on the ratchet strap by hand and then ratchet a couple of times to secure. Make sure you do not over-tighten the ratchet strap as this could damage the ladder. The ladder should still be sitting on its own feet and the 75% angle should not be affected;
6. Once the ladder is secured at low level you must then secure it at the top where it makes contact with the equipment. To do this wrap the ratchet strap around the rung of the ladder and a strong and substantial part of the equipment which will not be able to move in any way;
7. With the ladder now secured you can move to your desired height, taking one rung at a time using both hands where possible. Once there, secure the snap hook around the rung of the ladder directly in front. This will ensure you maintain 3 points of contact at all times, even if using both hands.

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Photos of safe working methods:



In folded/ A-frame position, ladder secured at one point with a single ratchet strap.



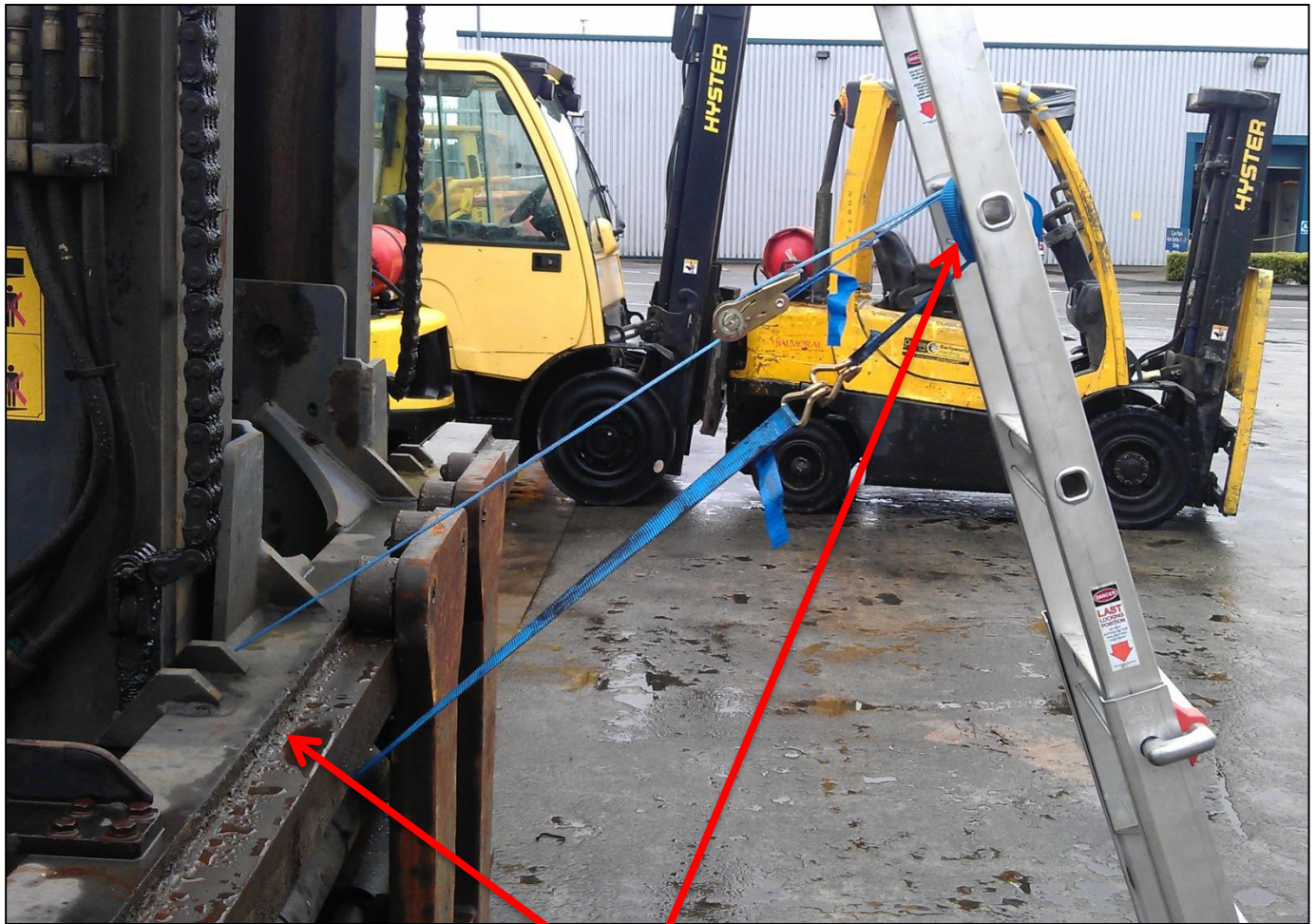
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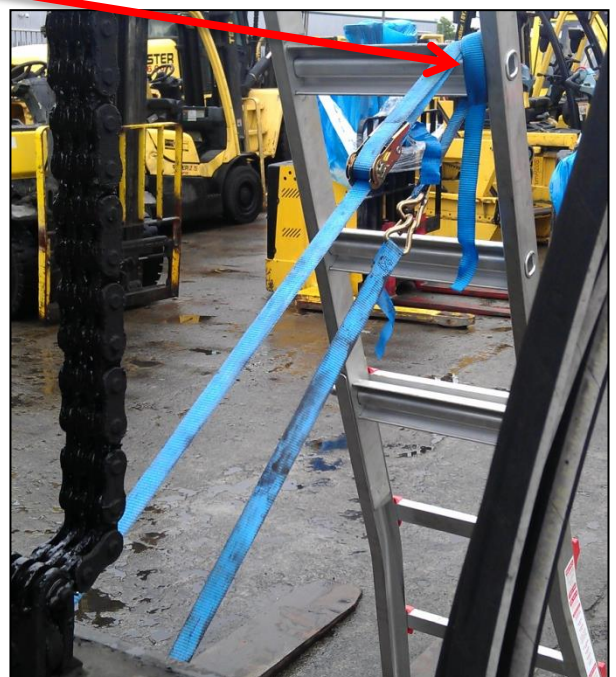
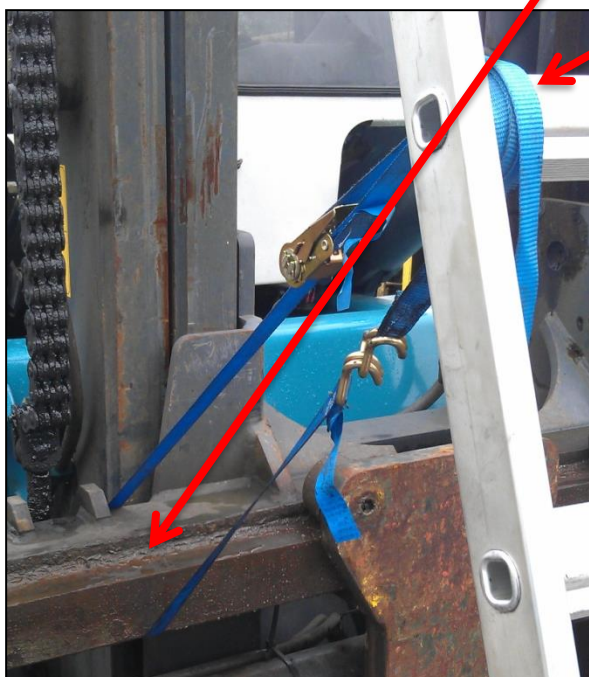
Once the ladder is secured, secure yourself to ladder using ladder harness belt, connected to karabiner, connected to scaffold hook to give extra point of contact.



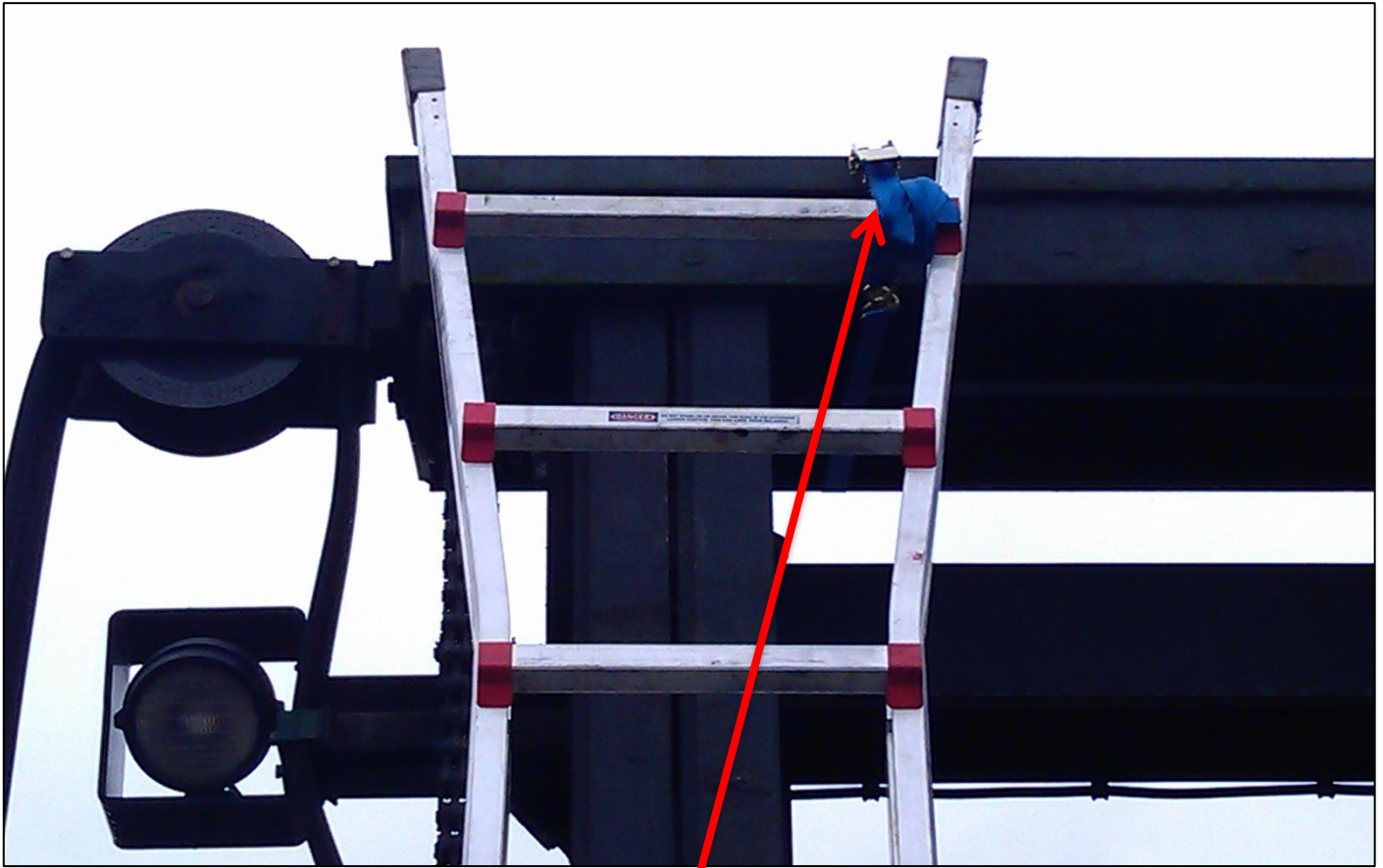
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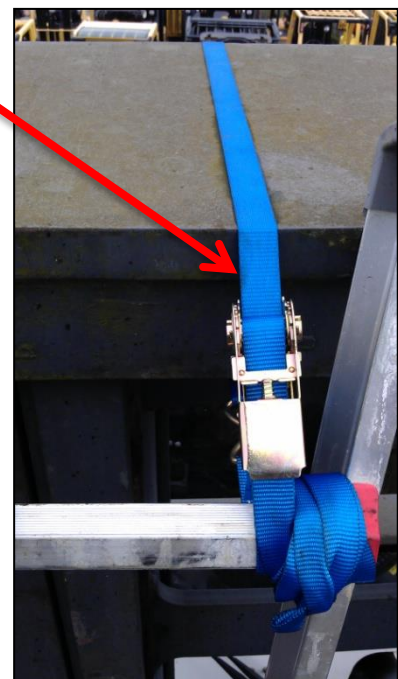
In extended position, secure firstly at a low level with a ratchet strap.



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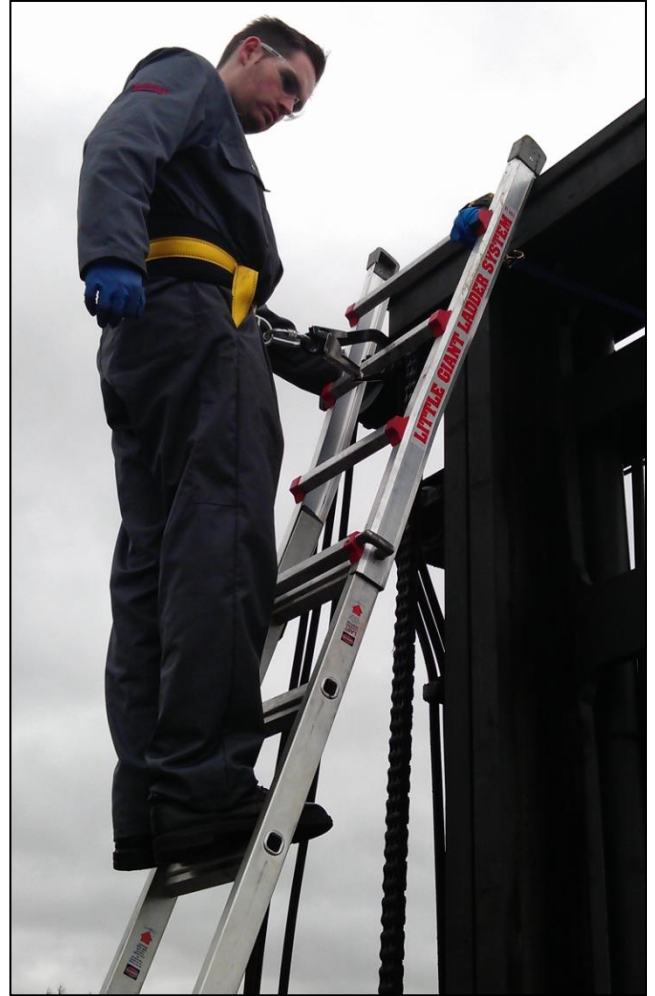
Next secure the ladder at the top using another ratchet strap.



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Once the ladder is secured, secure yourself to ladder using ladder harness belt, connected to karabiner, connected to scaffold hook to give extra point of contact.

